AMERICAN ANNALS

OF

The Deaf,

EDITED BY

EDWARD ALLEN FAY,

UNDER THE DIRECTION OF

J. WILLIAMS, OF CONNECTICUT, R. MATHISON, OF ONTARIO, R. O. JOHNSON, OF INDIANA, J. E. RAY, OF NORTH CAROLINA, AND A. L. E. CROUTER, OF PENNSYLVANIA,

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AMERICAN ANNALS OF THE DEAF.

VOL. XLIII, NO. 3.

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SOME CONSIDERATIONS TOUCHING THE DEVELOPMENT OF DEAF-MUTE EDUCATION TO A SCIENCE.

THE light of the sun, without which all the palpitating life of our world would quickly sink into death's chill darkness, has become such a commonplace of daily acquaintance that we seldom pause to consider how much we owe to it. In like manner the very children on the streets have become so accustomed to the multitude of blessings poured upon us by modern Science that they feel no surprise when a mile of street-lamps starts into brilliant incandescence at a flash, or when they see a heavily loaded street-car move steadily up a hill impelled by an invisible force. Yet the plague of a month's Egyptian darkness would not fall upon men with a more fatal destructiveness than a single day's cessation of those forces which Science has placed at the service of mankind within the present century.

Some serious reflection along this line, however, may bring us to a partial realization of all the comforts and conveniences we owe to Science. But not content with comparatively material results, before which the civilized world already stands in admiring wonder, insatiable Science is invading immaterial worlds which have been hitherto neglected because considered too unfruitful of practical

results or else too difficult and elusive. It is seeking to discover and define the innermost laws of human life, taken both in the individual and in the social aggregate.

The life and controlling principles of the human mind, not only as found at maturity, but as traced in slow development from the infant's first inarticulate cry; not only as seen in the normal type, but in various typical deviations from the normal—all these matters, of such vital significance to humanity, are now coming in for that patient, infinitely painstaking study which, in every department of human activity, has overthrown innumerable obstacles and won, step by step, fresh secrets of immense importance from the heart of Nature. In a word, nearly every sphere of human interest has begun to feel the irresistible power of the Scientific Method, bringing forth, wherever it goes, unnumbered benefits of practical value, discovering and pointing out to toiling men the paths of least resistance, and rendering their labor a hundred-fold more fruitful.

Seeing, then, how beneficent a friend, how powerful an ally, is this widely conquering Science, it is but natural that we should now begin to inquire how far our own particular sphere may have come under its sway; to ask whether our own work has yet felt the transforming touch of that magic wand before which confusion gives way to order and difficult paths are made easier. If astronomy can foretell the movements of heavenly bodies, if geology can predict the probable presence or absence of a given ore in a given locality, if bacteriology can show us how to conquer small-pox and diphtheria, is it not time for us laborers in a difficult and perplexing field of work to feel that master-power coming our way? Unquestionably, we should hail its coming with pleasure, and do everything in our power to hasten that event.

Meanwhile, we must acknowledge that it has not come. There may be those who would challenge the statement that deaf-mute education is not yet by any means a science.

Let us examine the matter, therefore, very briefly but with some care. Without entering into a minute and extended exposition of what constitutes a science, let us get clearly before us in broad outline the principal characteristics of any true science.

In the first place, there must be a distinct subject-matter which naturally differentiates itself from that of any co-ordinate field of investigation. Astronomy has for its distinct subject-matter the stellar universe, while chemistry seizes upon the atomic constituents of all material things. Thus, each science must, as a first condition to separate existence, disengage from out the mass of accumulating knowledge a subject-matter peculiar to itself. It cannot be disputed that we educators of the deaf have a field of study and work which entirely fulfils this requirement. But of this more presently.

In the second place, there must be something like an organic body of definitions and principles, logically evolved from a thorough study of all the subject-matter, and naturally grouped around the central theme. Inseparably bound up in this systematic arrangement of knowledge must be found at least a fairly good classification, by which the confused multitude of things dealt with is reduced to a conceivable order of types and sub-types, as is seen almost to perfection in botany. In so far as confusion of ideas, incoherency of principles, and lack of broad harmony in essential opinions prevail in any given field of knowledge, to that extent does it fall short of being a science.

In the third place, there must be a large measure of general recognition accorded to this main body of definitions and principles, as the working basis for all interested therein, until it is modified by further progress. So long as the workers in any special department of knowledge are all at sea among themselves as to the definitions, classifications, and general principles to be acknowledged by them, just so long will they be unable to assume the

dignity of possessing a science. In these days, to be recognized as such, a science must exhibit to the world a more or less compact body of special workers, who present a solid front as to the essentials of their specialty, though differing without end, it may be, in matters of subordinate detail and practical application.

And last, but far from least, perhaps even most of all, the world must see in the hearts and minds of these workers that fine spirit of loyalty to the truth which unflinchingly yields all personal interests and prepossessions to the demands of fact—the thing that *is*, irrespective of what we once thought it to be, or said it was, or very much desire it to be. Men have found it hard to learn this supreme lesson. They have waded through seas of blood, they have clung to falsehoods with pathetic tenacity, they have fought with desperate, deluded courage against the march of unwelcome truth, only to find in the end that humble submission to the arbitrament of fact is the best way. By doing so for a generation or two we have made the lightning our messenger, and superhuman force our most willing slave. No department of investigation and study can truly claim the title of science till its votaries have attained more or less perfectly this exalted spirit, and are actuated by it in all their sayings and doings.

Even in the light of this very imperfect sketch of the prime requisites of a science, it becomes quite clear that our own work of deaf-mute education cannot yet lay claim to that proud title, although it is certainly making creditable progress in that direction.

It has a sufficiently well-defined subject-matter, as we shall see. But it fails anywhere to present an organic body of definitions, classifications, and generalizations. The plant-world furnishes the theme of botany, and botanists have everywhere agreed practically upon a certain great system of classification and upon the general

biological laws of plant-life. Economists find their field in the study of exchanges, and have generally agreed upon the fundamental laws of exchange and upon certain great types of exchanges. We look in vain for such a condition of affairs among educators of the deaf, for there is still multitudinous diversity of opinion and practice among us, involving even the fundamentals of our work. Finally, we still lack a preponderating majority of investigators in our field, drilled in the scientific method, inspired with the scientific spirit, and intent solely upon gathering innumerable facts first and formulating theories afterwards—theories that grow irrefutably out of a systematized mass of facts. In a word, we all have still much to accomplish before we may dare to proclaim our work a full-fledged science.

It is not intended here to hint that any are to blame for this rather disappointing acknowledgment. The evolution of every science is a long, slow process. As one has written: "Many men in many lands must give thought and work to the matter in hand till slowly a science stands forth to view in full outline, if not in perfect detail." But meanwhile it will be well for us to take a note of our present position in the evolutionary process, that we may determine clearly, if possible, what lies next ahead for us to accomplish.

Have we grounds for believing that we shall some day, not so very far in the future, arrive at the level of scientific organization and practice in the conduct of our work throughout the world as educators of the deaf? It seems entirely reasonable to think so. Let us enter into the matter a little by way of surveying our ground.

The development of organized knowledge has already proceeded so far that there is almost a science of sciences, with its several principal groups, each comprising subordinate special sciences down to the second and third degree of subdivision. To such an extent has this gone that some

careful discrimination is frequently required to determine exactly where a given field of study should be placed in the family of sciences. Before proceeding further, therefore, we should ascertain the exact position of our would-be science of deaf-mute education in the general hierarchy of sciences.

Glancing over the whole body of modern knowledge, regarded as broken up into its constituent sciences, we perceive almost at once a certain plane of cleavage which roughly divides them into two great classes, viz: on the one hand, those which have been developed outside of and apart from the things with which they deal, originating purely in the region of thought and intellect; and, on the other hand, those which have slowly and tentatively grown up as the combined result of thought and the practical efforts of men day by day to increase the efficiency of some field of working activity. As examples of the former, we may take mathematics, astronomy, political economy; and of the latter, take medicine, jurisprudence, pedagogy. One readily perceives, for instance, that political economy is a product of pure thought working externally upon observed facts, while the science of jurisprudence is a complex result to which not only the thought of many men has contributed, but also their actual experiences, their successes and failures, in the practical endeavor to maintain justice among men through the instrumentality of laws and courts.

Assuming that this definition of two great classes of sciences has been made tolerably clear, it becomes quite evident to which of them our proposed science of deaf-mute education belongs. It is most emphatically not an affair to be developed by mere Aristotelian reasoning dealing from outside with the various phenomena of deaf-mute education, but a system of knowledge and practice to be empirically developed, as actual experience may dictate, from thousands of cases. This, in fact, is the only sound de-

velopment for that class of sciences to which ours will belong—sciences which undertake to inform men how they should deal with their own kind, whether as subjects for education, for government, for religious redemption, or otherwise. It will do to study the stars without going to live upon them; it may do to study the problems of labor without becoming a laborer, but it will ever prove vain foolishness to study medicine without visiting the sick, or educational science without living among children. Our science of deaf-mute education, then, must unquestionably belong to the great class of empirical sciences, as contrasted with academical sciences.

But, again, we have the already familiar classification of the sciences into the exact sciences and the moral or inexact sciences. The former are characterized by absolute precision in their laws and generalizations, allowing quite freely the process of deduction. The latter, however, are characterized by unavoidable vagueness in generalization, much use of the principle of averages, and the statement of laws to which there are many reservations and exceptions, the whole permitting but small scope for deduction regarding particular cases. After this brief restatement of the defining characteristics of the two classes, it becomes immediately apparent that our science would fall into the group of inexact sciences. In our work, for instance, we could never hope to classify our pupils into definite types with mathematical precision, to lay out our several processes of education with the exactness of the laws of motion, or to deduce from our generalizations the truth regarding a given child without a single tentative trial.

Briefly recapitulating, we find that our prospective science of deaf-mute education is placed in the great family of sciences, as follows: (1) It must be one of the empirical sciences, which means that we may put little dependence upon mere *a priori* reasonings concerning

the things of our profession, but must set to work to build up patiently an edifice broadly founded upon a basis of world-wide experiences and observations, industriously recorded, brought together, and systematized; (2) it must be one of the inexact sciences, which means that we cannot expect at the best ever to attain clean-cut precision in our generalizations and methods, as may the astronomer or chemist, for example, nor to make mere deduction serve our purpose in determining the particulars regarding each new case as it comes to our hands, without tentative trials and tests that will require time and trouble. Nevertheless, there has been immense gain in metaphysics, economics, etc., by reaching the condition of even inexact sciences, and so would our work secure very great advantages by attaining a like level. In a phrase, then, our science would be correctly defined by calling it an inexact empirical science.

Some may be inclined to ask at this point what advantage is gained by all this painstaking care to decide just what place our own would occupy in the family of sciences. The advantage lies simply in this, that—like some military commander planning a campaign—we first survey the country lying before us, determining what position we may hope to occupy, and how we shall then stand in relation to others, besides indicating roughly the paths by which we must travel toward our goal. By such a process of analysis and progressive exclusion we mark down our starting point to-day, measure our possibilities, and map out the course we must pursue, if we would not blunder confusedly onward, without definite plan or purpose.

Now, however, having accomplished such a survey, very hurried and inadequate but, perhaps, sufficient for present purposes, we may pass on rapidly, taking up in order certain other considerations bearing upon this important subject.

Reference has already been made to the fact that our field of work fulfils the first requisite of a genuine science, namely, it possesses a distinct and definite subject-matter. Pedagogy at large deals with the whole subject of educating youth, including all children and all educational processes. But under this general head several subdivisions are differentiating themselves. Our own work will constitute one of these. The generic term being "Education," our special subdivision may be designated by something like "Deaf-Mute Education." Future progress may develop some better title, but at present none seems to suggest itself which is not either cumbrous or otherwise objectionable. Those who would object to the term "deaf-mute" on the ground that not all deaf persons are mute should remember that *previous to education*, and therefore while subjects for educational science, the deaf *are mute*. The raw material of our educational science will certainly be deaf-mutes, even though a large proportion of the "finished product," so to speak, may reach a point where the adjective "mute" no longer applies to them. It would appear, then, that the convenient compound term "deaf-mute" is sufficiently accurate for present purposes in enabling us to specify without awkward circumlocution that particular subdivision of Educational Science to which we shall belong.

When we come to determine exactly what should form the subject-matter of our Science of Deaf-Mute Education, we discover that it must be twofold in its nature, being more akin in this respect to the science of medicine, for example, than to that of astronomy. In a single term, the stars, you can accurately name the subject of astronomy. Not so with medicine, for this has a double aim—to study the diseases of men, and also the processes of curing them. Similarly in our own work we have a twofold object.

First, we have a certain class of children distinctly marked out by an unusually emphatic type-characteristic—

deafness. This single word outlines instantly the boundaries of our sphere. Our science will have to deal with all children, of whatever race or locality, who are isolated from their environment by deafness. In the wake of deafness follows dumbness, and a whole series of psychological phenomena of the greatest significance to all educators, requiring special investigation and handling. To carry on this special investigation for the promotion of accurate knowledge regarding the psychological consequences of being isolated from society by deafness must be one, therefore, of two parallel aims.

And, second, we have complex and difficult educational processes by which to gain control of the psychological life of these children, both stimulating and guiding growth into ultimately normal maturity.

These processes have been evolving for some two hundred years, and have already attained a wonderful degree of complexity and efficiency. No one, however, imagines for a moment that they have reached perfection. An immense amount of work remains to be done in this direction, and herein lies the second of our two main objects.

The twofold subject-matter of our proposed science comprises, then, a thorough study of the psychological development of deaf children, leading probably to their classification in fairly definite types and a clear understanding of the special requirements of each type, together with the evolution of practical educational processes particularly adapted to those several requirements. Surely we could not ask for a more clearly defined subject-matter than this as the basis of a very respectable science. Many sciences of the present day, it may be said in passing, have by no means so clear-cut a field, and are constantly being embarrassed with difficulties regarding the proper limitations of their own territory, as witness the troubles of sociologists, for instance. So we have an advantage of considerable importance at the very start.

Having found, however, what our subject-matter comprises, the next question that will naturally occur to every student is this, "What materials are at hand out of which to begin the construction of a science?" Upon considering this vital point we find ourselves very well off.

There are now in existence a large number of works, records, documents, etc., of historical value, bearing upon the progress of deaf-mute education in the past. In the British Museum, in Gallaudet College, in the Groningen Institution, in the Volta Bureau, and other scattered places there are ample resources for a scientific study of our work in its historical aspects. No science can be complete that lacks an historical background, into which the roots of that which exists in glorious fruitage to-day may be traced back to their earliest humble origin.

Then we have a rapidly accumulating mass of statistics, in whose dry columns lie imbedded many valuable and significant truths, like diamonds in the ore. These statistics are not confined to a few localities, but are being gathered throughout the world. They deal no longer with hundreds only, or even thousands, but with tens of thousands.

We have also a rapidly growing body of professional literature, in which innumerable facts are recorded, needing only to be collaborated and systematized to bring out many generalizations of great importance.

In fact, this work of educating the deaf, although in a scattered and struggling condition only a century ago, has now gathered sufficient mass and momentum during these last years of the nineteenth century to furnish an adequate foundation for the beginnings of a science. The next century, in whose swiftly unfolding volume so much will be revealed to human ken not dreamed of in our philosophy, will probably see this special science, along with scores of others, brought to a high state of perfec-

tion. Our raw material for future scientific analysis and arrangement is rapidly accumulating. Scores of schools are busily at work educating thousands of deaf children, in many lands, under many governments. Thus a rich experience is being wrought up, and its results are being recorded in hundreds of documents. Verily, we can no longer set up as an excuse for shortcomings that we lack materials. We have them in abundance, with more appearing every year. Let us get to work, then, that we may soon point with honest pride to a Science of Deaf-Mute Education.

But now arises the question, What lies immediately before us to do toward this end? And on the threshold of the reply to this we meet the question, What is really the first stage in the development of any science? The first stage consists simply in gathering through the medium of many workers in many lands as large a mass of well-authenticated facts as possible, more or less systematized under principal headings; *e. g.*, in our case, facts relative to the causes of deafness, the different types of deafness, the psychological characteristics of each type, the *subsequent value of given educational methods when tested in real life*, etc. We must, therefore, address ourselves to this work of collecting systematically and recording accurately such facts, striving all the while to divest ourselves of all bias and prepossession, that we may neither suppress nor exaggerate any data to accord with preconceived theories, but simply present them as discovered in loyal fidelity to the scientific method.

To the end that we may set about this great work with that economy of time and energy born of intelligent co-operation and systematic effort, it will be for our conventions and conferences, where we act together as complex units, to devise the machinery by which simultaneous and specialized work may be accomplished all along the line. The coming summer will see a great meeting of the most

successful educators of the deaf in the world. It will be a great opportunity for some important steps to be effected in this direction. There is every reason to believe that the opportunity will not be neglected.

Meanwhile, as this collecting of data goes on far and wide, it will be for individual students, urged by that spirit of thirst for truth which has inspired the great scientific pioneers of our age, to take hold of the amassed facts, work them over with infinite patience and industry, seize upon the right generalizations, define the lines of classification, develop the true processes of education for these silent children of the world, and thus body forth out of the amorphous whole the form and substance of a real science.

Is this but an air-castle? It is generally very unsafe for us mortals to predict regarding human affairs, yet the present writer will venture here the prediction that another generation shall not entirely pass away without seeing the work, above roughly sketched, almost carried out. There are many present signs that give foothold for this hope. There are many evidences indicating the development of a conscious movement in our profession toward adopting widely harmonized and systematic efforts for the elevation of our work to that plane of unassailable generalization and definitely co-ordinated knowledge that will entitle it to be called a science.

The renewed organization of the Convention of American Instructors of the Deaf three years ago, with its several special departments for the promotion of accurate knowledge in specific directions; the warm enthusiasm generated in the hearts of several hundreds present for further progress toward a higher plane; the growing evidences of original investigation by members of that Convention since; and, across the Alantic, the recent reorganization of teachers of the deaf in Great Britain, with a successful Conference at Glasgow; the appeal made to this assembly

byone of the ablest members of the British profession, Mr. W. H. Addison, for a systematic effort to be made toward the collection of information and statistics regarding the deaf—all these things are straws, and large ones, that show us unmistakably the direction of the current.

It is time for our work to emerge from the long period of confusing controversy, fed by *a priori* assumptions and barren Aristotelian logic as in the days of the schoolmen, mere fruitless straw-threshing and endless repetition of what has already been said, and to gain the height of scientific consistency and sureness of movement in all departments, resting upon indisputable fact, broadly founded generalization, and thoroughly correlated processes of education. The very thought of such a goal, rising before the mind's eye like some distant impressive outline of a noble edifice, is enough to touch the heart with that divine afflatus which fills the human spirit with an indomitable resolution to win, and is never quenched by difficulty, discouragement, or weariness of the flesh.

J. A. TILLINGHAST,
Head Master of the Ulster Institution, Belfast, Ireland.

COURSES OF INSTRUCTION IN SEWING AND COOKING IN THE WISCONSIN SCHOOL.

Course in Sewing.

First year.

Position of the pupils while engaged in sewing; the proper use of the thimble finger, first finger, and thumb of the right hand; position of the left hand for holding the work; exercises in the action of taking a stitch and drawing the thread through the material; drill in threading the needle (always given at the beginning of the lesson). The first samplers are railroad canvas; this being crossed with threads running both ways compels

the pupils to count the threads, insuring accuracy of the eye as well as the fingers. The stitches are basting, running back-stitch, over-and-over stitch, chain-stitch, bias stitch, button-hole stitch, and feather-stitch.

The second exercise is on a sampler of coarse scrim. The same stitches are repeated as in the first exercise, the scrim being finer than the railroad canvas. It is worked with crochet-cotton, in colors.

Third exercise. Railroad canvas with colored Saxony yarn, single-thread darning, double-thread darning, bias darning and weaving, buttonholing, and cross-stitch embroidering.

Fourth exercise. Muslin or India linen, cut into strips, and the first seam basted, second seam running, third seam over and over, fourth seam felling, fifth seam French seam, sixth seam bias felling, seventh seam hemming and open feather-stitch, one end hemmed, one end hemstitched.

Seventh exercise. Gathering, stroking gathers, and sewing into band, button-holes, and sewing on buttons. Gathering and sewing into band, gathering with a heading without a band, invisible patching, matching stripes, dress and stocking darning, darning with ravelings of dress goods, darning laces and table-cloths.

Second year.

Muslin garment-making, both plain and fancy. Each pupil makes one or two of all the garments worn by either sex. The garments are of miniature size but are made as full-sized garments should be.

Third year.

Artistic decorative needle-work; embroidery in white and colors, with cotton and silk, on linen; blending of colors and shading of flowers and foliage.

Fourth year.

Dress making, cutting, fitting, and drafting; cutting by patterns and dressmaker's model.

In all grades particular attention is given to the position of the pupil while sewing, accuracy in the use of rule and tape measure, names of materials and articles in use, and of garments being made; also the proper size of needles and thread for different fabrics. A pupil's sample work or garment is not accepted unless reasonably well executed. An exercise is often repeated three or four times.

COURSE IN COOKING.

First year; Plain Cooking.

Lesson 1. Housekeeper's rules, building the fire, regulating the dampers, blacking the stove, lighting the fire, emptying ashes, care of zinc, filling tea-kettle, collecting soiled dishes from the table and taking them to the sink, dusting the room; care of silver, glassware, bread and meat boards, tins, and dish towels.

Lesson 2. Receipts for baking potatoes, croutons, and bread crumbs. Abbreviations.

Lesson 3. Food, how it builds up the body and keeps it warm; classification of foods; measuring, table of measures and weights; receipts for baked apples, baked crackers, and baked crackers with cheese; questions on former lesson.

Lesson 4. Boiling or cooking in water; experiment with starch; potatoes; general rules for cooking vegetables; time-table for boiling; receipts for boiling potatoes, rice potatoes, mashed potatoes, potato cakes, and boiled eggs; questions.

Lesson 5. Steaming and other forms of cooking in boiling water; milk; the combination of foods; receipts for oatmeal mush, steamed rice, soft custard, poached eggs, steamed apples, and steamed potatoes.; questions.

Lesson 6. First lesson in meat; boiled meat; boiled mutton; gravy; smothered beef; clarified fat or drippings; questions.

Lesson 7. Warming over; gravies; sauces; thickening; macaroni; receipts for minced meat, meat on toast, hash, tomato sauce, and white sauce; questions.

Lesson 8. Soups; general rules for stocks; receipts for soup stock, macaroni, mixed vegetable soup, rice, potato, and bean soup; questions.

Lesson 9. Broiling; pan broiling; time-table for broiling; broiling steak and mutton chop; questions.

Lesson 10. Suet pudding; ginger and fruit suet puddings and lemon sauce; to chop suet; to clean currants; to stone raisins.

Lesson 11. Stews; receipts for beef stew, dumplings, biscuit, baked apple sauce, and stewed prunes.

Lesson 12. First lesson in batters; stirring and beating; receipts for griddle cakes, whole wheat or Graham gems, pop-overs, and snow pancakes; questions.

Lesson 13. Thicker batters; muffins and doughnuts; rolling; frying; general directions for mixing; receipts for corn cake, ginger bread, soft molasses cookies, and doughnuts.

Lesson 14. Bread; yeast; the heat for baking; time-table for baking; receipts for yeast and bread; questions.

Lesson 15. Care of food; receipts for pastry, apple and rhubarb pies, pies with no upper crust, pies with two crusts, plain mince pie, and cream potatoes.

Lesson 16. The adaptation of food to age, occupation, and climate; the cheapest foods; peas and beans; receipts for split-pea soup, Scotch broth, steamed brown bread, scalded corn cake, and fried corn-meal mush; questions.

Lesson 17. Preparing poultry for cooking; receipts for chicken fricassee, veal fricassee, cranberries, cole-slaw, scalloped apple, and cream rice pudding.

Lesson 18. Fish; receipts for broiling, baking, boiling, and frying fish, stuffing for fish, drawn butter and egg sauce, fish balls; questions.

Lesson 19. Eggs; oysters; dropped eggs; omelet; egg vermicelli; preparing and parboiling oysters; fried, stewed, and scalloped oysters; questions.

Lesson 20. Setting breakfast, dinner, and supper table; serving; how to pass and hand articles to guests; how to fill the glasses; what to be placed at the right hand or left hand in serving; clearing of the table after the meal is over; care of the dining-room.

Second year; Richer Cooking.

Lesson 1. Coffee, dripped and boiled; care of the coffee bean; mixtures and brands; to make coffee; tea; proportions of water and tea; seeping of tea; Russian tea; iced tea.

Lesson 2. Chocolate; cocoa; lemonade. Receipts for lyonnaise potatoes; egg vermicelli; hominy drop cakes; rice or griddle cakes; lettuce salad; boiled dressing.

Lesson 3. Mutton cutlets breaded; omelets; waffles; lemon syrup; chocolate; questions.

Lesson 4. Yeast; bread; Parker House rolls; scalloped oysters; baked eggs and breakfast bacon; tea.

Lesson 5. Stock for clear soup; fried or broiled fish; Tartar sauce; potato croquettes; sponge cake.

Lesson 6. Braised beef; raised muffins; custard soufflé; orange short cake; questions.

Lesson 7. Invalid cookery; digestion; caring for invalids; food for invalids; tea.

Lesson 8. Lemonade; apple water; rhubarb water; Irish moss jelly; milk porridge; oatmeal gruel; preparing an orange for an invalid; chipping ice.

Lesson 9. Receipts for toast; ice cream; nutritious and innutritious food, and the proper proportions; stimulating food; water toast; milk toast; egg-nog.

Lesson 10. Beef juice; blanc-mange; wheatena; gruels; flour, arrowroot, and cornstarch gruels; broiled steak.

Lesson 11. Receipts for white soup from veal; veal croquettes, oysters and mushrooms in crusts; spinach, cauliflower in cream; rice and apricot pudding.

Lesson 12. Sardine sandwiches; apple or orange charlotte; roast duck with olives; baked plum pudding; apple pudding; snow pudding; floating island.

Lesson 13. Cream celery soup; roast chicken; boiled rice; cranberry sauce; potatoes; gold and silver cake; plain frosting.

Lesson 14. Apple fritters; Graham gems; lady fingers; orange or wine jelly; tapioca cream.

Lesson 15. Oyster patties; creamed oysters; mayonnaise dressing; ice cream or sherbet; angels' cake.

Lesson 16. Fruit; to preserve ripe fruits; iced fruits; kinds of fruits to select for canning, for jellies and marmalade.

Lesson 17. Receipts for preserving peaches, damsons and green gages, raspberries, strawberries, currants, blackberries, and cherries.

Lesson 18. Grape, currant, raspberry, pear, peach, and quince jams.

Lesson 19. Sweet pickles; chow-chow; pickled cucumbers; mustard pickles.

A. F. STRUCKMEYER,
Instructor in the Manual Training Department of the Wisconsin School, Delavan, Wisconsin.

HEARING DEAF-MUTES.—I.

A Contribution toward the Elucidation of the Question of Methods.*

Every fallacy has three stages;—
In the first it finds its birth,
In the second none will give it worth,
In the third it masters all the sages.
—*Grillparzer.*

I.

About the middle of this century a Swiss named Guggenbühl came forward with the astounding announcement that he had invented a method of instruction and education which would make it mere child's play to banish idiocy permanently from this mundane sphere. The demeanor of the man was so full of confidence, his unctuous appeals to benevolent humanity so irresistible, that even the most stony-hearted could not but assist this seeming philanthropist in his noble project of establishing an institution for idiotic children on Mt. Abendberg, near Interlaken.

The institution was established, and through many years was the recipient of profuse sums of money, without its ever occurring to anybody to obtain more immediate information of its work and methods, hidden away as it was in its sequestered nook. But sinister and persistent rumors at last compelled the authorities to examine into the conduct of the institution, and then it was discovered that the inmates were in a scandalous condition of neglect, and that, far from being a place of cure, it was rather a breed-

*Translated from the German by George W. Veditz, M. A., Instructor in the Colorado School, Colorado Springs, Colorado. The original is published by the author at Breslau, Silesia, Germany (1897, 8vo, pp. 49), and is "dedicated with grateful esteem to Dr. E. M. Gallaudet, champion and promoter of the cause of deaf-mute education" in America.

ing-place for imbecility. The pious Guggenbühl, of course, soon found his occupation gone, but he bore the odium of his exit with dignity, for had he not managed to fill his pockets?

Have we to deal in this case with a shrewd scoundrel, or with an unbalanced enthusiast, deluded into the belief that he could really work miracles? I will leave the question unanswered, as the phenomenon is one, unfortunately, not of isolated occurrence. Whoever studies the literature of the education of special classes will repeatedly meet this Guggenbühl as a typical figure of persons whose pretensions are as exaggerated as their demands are immoderate, and who, moreover, in addition to a touching self-abnegation which they exhibit on all occasions, know how to make the impression that their eye can pierce far beyond the bounds of human ken. The genuine Guggenbühl, who dedicates his services to God and suffering humanity, knows and can do everything. He poaches on the manor of the physician, the surgeon, and the alienist; he cures all the ills that flesh and soul are heir to; blindness, deafness, and imbecility cannot daunt him; broken bones badly set, curvature of the spine, stuttering, stammering, lisping, and other forms of defective speech are but trifles to his omnipotence; eye-water and optic-salve, ear-oil, ear-drums, and trumpets of all kinds; rheumatic rings, electric baths, galvanism, magnetism, hypnotism, microphonophotography, and other things concerning which the many-headed multitude has the most vague conceptions, are made his obsequious servants. At the same time the results are always magnificently successful. Even in complicated cases of long standing a cure is guaranteed.

Just now, however, I have come across a slight case of failure. The *Organ der Taubstummen-Anstalten* (1897) chronicles that at the instance of an importunate mother the superintendent of the deaf-mute school at Wilhelms-

dorf, Würtemberg, undertook a journey with a number of deaf-mutes to Vialas, in southern France, to meet "a peasant who healed by means of prayer," but, the *Organ* concludes, "without any appreciable results." Where medical skill is vain, where despairing man hopes against hope, we find Guggenbühl shouting his wares; where the necessity is greatest, there, too, Guggenbühl is nearest.

In the domain of deaf-mute education a certain leaning toward Guggenbühlism has at all times manifested itself, and this sinister phenomenon finds its explanation in the fact that the work of a deaf-mute teacher is controlled with difficulty. This condition is even now, moreover, fostered by the lack of expert superintendence.

Seneca's contemptuous assertion that human nature is not only liable to err, but loves to be deceived, is nowhere more forcibly verified than in our own profession. The history of deaf-mute education is a continuous struggle not only of new truths against old fallacies, but also of new fallacies against old truths. From time to time some addled head is possessed with the notion of bucking against an old established fact as a prejudice, and he must manage very awkwardly if he does not find from the start devout believers. The more preposterous and hare-brained the doctrine, the more alluring it is to all those who have forever renounced independent investigation: "I credit it because it is so incredible."

Among these fallacies I count the claim that has lately caused such "a well-justified sensation," that it is possible partially to restore hearing to the deaf by means of systematic auricular exercises, and thus to enable them in a certain measure to understand speech through the ear. But at the same time I must disclaim beforehand that I mean to accuse the exponents of *this* doctrine of *wilful* deception. For we have here actually to deal with real phenomena which deserve the most careful consideration, but which in my opinion have as yet found no

satisfactory explanation. I beg leave to give briefly the following in reference to the history of this subject.

Before the real relation of deafness and dumbness was understood the surgeon's scalpel was frequently called upon to alleviate the infirmity of the deaf-mute. But after the fact gained recognition that loss of speech was a natural and necessary result of deafness, discerning men were soon found who probed to the root of the trouble and endeavored to bring help and salvation to the deaf by medical and acoustic experiments upon the defective auditory organs.

Thus the learned and far-sighted Spaniard Bonet says in his "Method of Teaching Deaf-Mutes to Speak," published in 1620: "Efforts have been made to remedy the defect of deafness in the dumb by taking them into the open field or into vales, where the voice has a greater volume, and forcing them to scream so loud that at times the blood would flow from their mouths. They were also squeezed into barrels, where the voice must strongly reverberate, in order to awaken their latent hearing. But all these violent measures were unavailing."

The French aurist, Itard, who at the beginning of this century did so much good at the National Institution at Paris, starting with the fact that the ear of many deaf-mutes was not altogether insensible to sound, believed that in many cases it was possible so to improve such latent and defective hearing as to enable the acquisition of speech through the natural channel.

Though Itard's results were far from satisfactory, the methods he employed soon aroused the attention of German teachers. As early as the 16th of April, 1830, there was a conference at Vienna of several government councillors and high medical authorities with Mr. Venus, superintendent and head teacher of the Imperial Institution, at which it was decided to submit Itard's methods to a practical test, and to ask the authorities for permis-

sion and also for the necessary funds. The Austrian school authorities sanctioned the proposition, and also requested the commission appointed to supervise the experiments to submit a detailed report of whatever results might be achieved. Mr. Fink, the present superintendent of the Institution, has been so kind as to let me examine the minutes of these preliminary transactions, but up to the autumn of 1895 no memoranda of the results of the experiments have been found in the records of the Institution.

Similar experiments were made in 1835 by a Hamburg physician, Dr. Bairiés, with fourteen pupils of the Royal Institution at Berlin, but the consensus of expert opinion was that "in not a single case had the hearing of any of the persons treated improved," though it was acknowledged that "several of those ostensibly cured had learned to utilize better than formerly the hearing they already possessed, mainly because their attention had been concentrated on the impressions made on their hearing, and also because they had been drilled in distinguishing these impressions."*

At the same time—that is, about fifty years ago—the well-known aurist, Dr. Linke, also seized upon Itard's suggestions. This savant, not unreasonably, reproaches deaf-mute teachers with being too prone to place the main importance on exercises in articulation, whereas, he says, the acquisition of the correct articulation of a sound ought to be immediately followed by teaching the comprehension of the same sound through the ear. "Why is it," he asks, "that the oral method has so far not had greater results? Because of the complete neglect of auricular training. Even if we only desired to lighten the task of instruction, more attention should be paid to the development of the hearing than has hitherto been the case."

* Walther, "The Royal Institution at Berlin," p. 48.

About twenty-seven years ago, when Mr. Lehfeld opened a private school at Vienna, he promised, in his prospectus of instruction, to develop by means of daily drill whatever hearing his pupils might possess, and, as instruction progressed, to accustom them more and more to the sound of the voice, until at last they might be able to understand speech entirely through the ear. Unfortunately, no account exists as to the measure of success achieved by Mr. Lehfeld, or whether he was able to redeem his promise.

In recent decades these auricular experiments had fallen into a sort of disrepute, as leading teachers of the deaf inclined to the opinion that they did more harm than good. In fact, the fear was expressed that the scanty remnant of hearing that might be possessed would be wholly destroyed by the violent stimulus to which it would be subjected.

Lately this phase of deaf-mute education has again come into prominence, and simultaneously in both the Old World and the New. In America they have not only an oral method, a manual method, a manual-alphabet method, a combined system, etc., but also an auricular method. In native and foreign scientific papers we find reports of exhibitions and public conventions at which these latest marvels have been exhibited to the gaping public—that is, deaf-mutes who can hear and speak, and are therefore neither deaf nor dumb.

In German-speaking countries the initial movement was again at Vienna, and not only at the Imperial Institution, but also at the Institution at Döbling, near the capital. In his latest writings, Mr. Lehfeld, superintendent of the Döbling Institution, claims that he can restore hearing to the deaf in the same limited degree that he can restore their speech. The main purpose of his acoustic exercises, he says, is to bring the pupils to a perception of their own voices, and thus to a greater purity and ease of speech.

He claims that his method enables them "to comprehend speech as a whole through the ear in the same measure as they read it from the lips with the eye. * * * Their hearing becomes accustomed by degrees to the spoken language, so that they learn to understand what is said in the dark, where lip-reading would be impossible, the process finally culminating with their partial introduction to an entirely new world—the domain of sound."

According to Mr. Lehfeld, systematic auricular exercises were begun at Döbling in September, 1893. The results of these exercises were exhibited during the convention of German scientific and medical men held in Vienna, September 23–29, 1894, in the section devoted to diseases of the ear. In the report of this exhibition we find the following: "The chairman, Professor Dr. Rohrer, expresses his warmest appreciation to the lecturer and demonstrator, Professor Urbantschitsch, and thanks those praiseworthy men who have elevated the deaf-mute schools of Austria to such a high plane, and who labor hand in hand with the representatives of otological science for the welfare of these unfortunate patients, who have so great a claim on our fostering care. We are happy to have learned *a new method*, which will benefit just those patients who are least amenable to treatment."

The daily and scientific press soon published the queerest reports concerning these exhibitions, which were repeated at the "monthly meetings of the Royal Imperial Association of Physicians of Vienna." For instance, a Vienna daily published an article under the caption, "Complete Cure of the Deaf and Dumb," in which the "magnificent" results of these auricular exercises received as grandiloquent a description. Professor Dr. Lustkandl, expert of the committee on educational matters of the Chamber of Deputies, took part in one of these demonstrations before the above-named association, December 1, 1893—that is, after the exercises at the Döbling School

had been practised only three months. Later, Dr. Lustkandl reported at a session of the committee the observations he had made, with the result that the then Lord Marshal of the realm, Baron Von Gudenus, felt compelled to express his appreciation to the superintendent and teachers of the Government Deaf-Mute Institution at Döbling. On the 1st of February, 1895, the same subject was brought up for discussion in the Lower Austrian Assembly by Deputy Dumba, and the Assembly forthwith sent an appreciative message to those publications which had signalized themselves in the service of the new method. The Assembly was also authorized "to further this system, so beneficent to the wards of the nation, in every way possible."

As we can see from the above, the exponents of the auricular exercises at Vienna have had no dearth of encouragement, and it was but natural, in view of the alleged successful results, that the teachers of the deaf in other countries felt compelled to make similar experiments. As a matter of fact, these auricular exercises have been extensively applied, during the last few years, in many German and foreign schools. The reports submitted are, however, unfortunately of a nature to awaken, both among the authorities and the public, unwarranted hopes and expectations.

Perhaps the most accurate observations on this subject are those made at the Third Convention of German Deaf-Mute Teachers at Augsburg, by Mr. Hemmes, Superintendent of the Institution at Bensheim. Among other things, Mr. Hemmes said: "About 25 per cent. of the deaf possess some hearing on entering school. With these, pains should be taken during the whole course of instruction to perfect (?) the remnant of hearing, and to have the pupils use it in the acquisition of speech." But Mr. Hemmes indulges in extravagant expectations when he thinks the method will be so efficient that hereafter "there

will be no totally deaf pupils in our institutions." The same may be said of Actual High Privy Councillor Dr. Schneider, who at the Conference of Superintendents of the Deaf-Mute Institutions of Saxony held February 11 and 12, 1897, desired the auricular exercises to be universally adopted, on account of their practical value, enumerating among their benefits "hearing one's own voice, the retention of remnants of speech, intercourse in the dark, and hearing noises in crowded streets."

Dr. Urbantschitsch, aurist and university professor at Vienna, has taken a leading part in the whole movement, having succeeded in securing the school at Döbling as a field for his experiments. But, not fully undeceived by the teachers of this school concerning certain features, he has nourished hopes and expressed opinions that every expert teacher of the deaf must, after careful study, find to be at least questionable.

When Dr. Urbantschitsch and his disciples speak of an "awakening, strengthening, reinforcing, reviving, development, and improvement of the hearing," they appear to think that their acoustic appliances will produce anatomical and physiological changes in the auditory organs, and that the hearing is developed in the same manner as systematic exercise develops the muscles of the body to greater efficiency. Without referring to the circumstance that even experts are undecided in their diagnosis of the pathological condition of the auditory organs, I believe it is questionable whether the susceptibility of a *weakened and defective* sense-organ can be increased in the same manner as the efficiency of a *healthy* limb hitherto more or less unused. If this possibility existed, we should endeavor, through suitable exercise, to remove not only defects in the ear, but also in the remaining sense-organs. Thus, I do not believe it impossible that a person who thinks he can no longer smell may yet be able to distinguish strong and pronounced odors; but I venture to

doubt whether his weakened olfactories can be so far reinforced by exercise as to enable him to distinguish the perfume of a rose from that of a pink. One who is almost blind may still possess a slight perception of intense light or even a very iimited capacity of distinguishing objects, but we never hear of such defective vision being improved as the result of persistent exercise.

The results of this auricular drill might lead one to speak of *apparent* successes, but these are difficult to explain, and easily lead to erroneous conclusions, inasmuch as—

1. Defective hearing is manifested in an extraordinary variety of forms;

2. A comparatively slight degree of hardness of hearing in children prior to the period of speech-acquisition may result in dumbness;

3. These persons are of so immature a development, mental and linguistic, that they are *themselves* unable to give a reliable account of any possible betterment or aggravation of their infirmity;

4. The influence of systematic articulation and language instruction upon the power of hearing which these children possess is often so striking that frequently the auricular drill receives credit for what is really a result of the drill in articulation and language.

Further elucidations are here necessary to explain the fallacy in which the adherents of the auricular exercises are entangled, and at the same time to come to a general understanding of the subject.

The belief is almost universal not only among the public, but also in scientific circles, that the pupils of our institutions are absolutely deaf, and consequently dumb. This belief is wholly erroneous. The infirmities of our pupils are so varied, and appear in such manifold forms, that we should have to make a highly complicated classification, should we attempt to distinguish more particu-

larly all the conditions and degrees of deafness and dumbness which we have occasion to study in our pupils. The following classification will be sufficient for our purpose:

1. According to my estimate, about 50 per cent. of our pupils may be regarded as totally deaf, and no amount of skill can lead them to any conception of sound. If, now, Professor Urbantschitsch and his adherents assert that energetic acoustic drill may enable a majority of *these* deaf-mutes to distinguish at least the vowel sounds, these gentlemen are suffering under the same delusion as those teachers of the blind who, not so very long ago, believed in the fallacy that the blind could be taught to distinguish the color of certain substances through the medium of touch. Deaf-mutes of a susceptible temperament may be able, after long practice and strenuous effort, to distinguish certain vowels, when vigorously pronounced, by the difference of the vibrations produced in their bodies, or, through an ear-trumpet, in their ears and the bones of the head. These deaf-mutes do not grasp the vowels through the ear, but distinguish them, with more or less accuracy, through their trained sensory nerves.

2. Next to the totally deaf, we find pupils in our schools—their number may comprise from 20 to 25 per cent.—who respond to the very loudest sounds and noises, such as the noise of the steam-whistle, the thunder of cannon, the sound of a great bell rung near them, etc. The hearing of these pupils is, however, so feeble that vocal sounds, even when ejaculated in a stentorian voice, fail to produce any impression. This glimmering degree of hearing may be regarded as having no influence at all upon the vocal development of these pupils, and sensible teachers have already abandoned all efforts to help such children aurally.

3. Finally, we find in our schools pupils—and they make up the remaining 25 to 30 per cent.—who really possess some hearing, who can, for instance, hear the barking of dogs, the crowing of cocks, the neighing of

horses, the ringing of the dinner-bell, and other noises, and who have remained dumb only because their hearing was impaired before the period of speech-acquisition, their friends neglecting to give proper attention to their trouble. It is just these so-called deaf-mutes, whose partial hearing is, moreover, manifested in the most varied degree, who may be regarded as the cause of the present movement. And, really, during the course of instruction phenomena were observed in these pupils, which, while they have not found a satisfactory explanation, are nevertheless, in my opinion, given an erroneous significance by the adherents of auricular exercises.

The elements of our speech, from the resonant *a* to the almost inaudible aspirate *h*, form a scale of tones and sounds of the most diverse intensity. Meagre fragments only of our speech forced their way to the ear of the partially deaf child, namely, the vowels in irregular recurrence and varying volume, while in the case of those whose deafness was more pronounced the consonants rolled by without leaving any impression at all. The child noticed, of course, that the rest of the family communicated by word of mouth, but was unable to straighten the chaotic tangle of sounds that beat upon its ear, and was in the same predicament as a person of normal hearing who, unfavorably placed, listens to some speaker and, while hearing his voice, does not understand a word.

In order to learn speech in the natural manner, there is requisite, among other things, normal hearing—the ability not only to distinguish the vowels, but also to grasp the consonants. As this condition was lacking with the little ones in question, they necessarily remained dumb. This class of pupils must acquire speech in the same manner as other deaf-mutes. It is evident, however, that they possess a great advantage over the totally deaf, for they quickly grasp the purpose of the mechanical articulation exercises, and very soon fathom the secret that *sounds* serve as a

medium of thought. While learning the pronunciation of the individual sounds, these children not only study the movements and positions of the lips and vocal organs, but when the respective vowels occur *isolated* and with the necessary *volume* and *clearness*, the ear, as well as the eye, is simultaneously called into service. The ear is able to distinguish *vocal differentiations* in these loud and isolated sounds, which it was unable to do in the *connected form of ordinary speech*. If, now, these children are provided with a duplex ear-trumpet so that they can compare the voice of the teacher with their own, the acquisition of speech will be materially accelerated. In the same manner as a normal child, after the regular dissection and examination of some plant, sees more *with the same eyes* in every subsequent plant than before the first lesson, so the partially deaf child, after he has acquired some perception of the sonorous elements of speech, apparently hears more, *though with the same degree of hearing*, than before. After these children come thus suddenly to a mental quickening, and to the knowledge that the hearing they possess may yet be of service, the soul rushes to both eye and ear, and they use both senses in almost equal degree in the acquisition of the new treasure.

During the entire school course, these pupils have a decided advantage over their totally deaf school-mates. They give the articulation teacher little trouble, and in the succeeding grades they are conspicuous for their distinct and fluent speech, their accurate comprehension of questions, and, outside the class-room, their persistent and copious use of articulation. These children, even when of only medium capacity, frequently outstrip the most intelligent among the real deaf-mutes, and, where they are not feeble-minded, nearly always reach the highest grades. They cause a great sensation at public exhibitions by their distinct and easily understood articulation, and on every occasion know how to win the favor of all those who are

not sufficiently acquainted with the great variety of phases in which the infirmity of the deaf is manifested. Deaf-mutes of this class, who on entering school are barely able to distinguish one or two vowels, apparently learn how to hear during their artificial acquisition of speech. Some of them, with progressive instruction, get so far as to seize, *through the ear alone*, words, sentences, and even statements of some length. Had these persons had their hearing impaired in the same degree *after* the period of speech-acquisition, they would probably not have been put in a deaf-mute school at all, and therefore Tröltsch, in his treatise on Diseases of the Ear, says very pertinently: "The same affection of the ear which makes an adult hard-of-hearing produces dumbness in a child."

All the observations and investigations I have made have convinced me that the aural improvement in those of our pupils who possess a minimum of hearing is only *apparent*. After the infirmity has been once established, and nature does not come to the rescue, the mechanical aural capacity nearly always remains the same. The degree of hearing is unchanged, but the pupil, as mental development advances and his powers of combination are increased, learns how to put his originally inert hearing to better and better use.

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[TO BE CONTINUED.]

A NEW DEVICE IN TEACHING LANGUAGE.—II.*

Explanations.

(WHO), (what), (how), etc., are "inciters;" the dash [—] stands for noun, pronoun, or verb, as the case may be; words inserted in brackets are explanatory or suggestive, as: The lady teachers who live (where) take (what) [at noon] (where) = The lady teachers who live down town take dinner at the school.

A (who) runs = A boy runs.†
or A girl runs.
ran. A man runs. Etc.
QUESTION: Who runs?

Plural.

(who) run = Boys run.
or Girls run.
ran. Men run. Etc.
QUESTION: Who run?

A (what) runs = A dog runs.
or A horse runs.
ran. A cow runs. Etc.
QUESTION: What runs?

Plural.

(what) run = Dogs run.
or Cows run.
ran. Etc.
QUESTION: What run?

A (who) eats (what). = A girl eats bread.
or A boy eats an apple.
ate.
QUESTION: Who eats an apple?

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* Continued from the February number of the *Annals*, page 87.

† While parts of the method are printed for convenience thus: "A (who) runs. = A boy runs. Etc.," in actual practice, particularly with beginners or primary pupils, the device should always be used in this way:

A (who) runs.
A boy runs.
A girl runs. Etc.

Plural.

(who) eat (what). = Boys eat cake.
or Girls eat pie.
ate. Etc.

QUESTION: Who eat cake?

A (what) eats (what).
A dog eats meat. Etc.

QUESTION: What eats meat?

Plural.

(what) eat (what).
Dogs eat meat.
Horses eat oats. Etc.

QUESTION: What eat meat?

A (who) (does what).
A boy runs.
A girl eats bread.
A baby drinks milk. Etc.

QUESTION: What does a boy do?

Plural.

(who) (do what).
Boys play ball.
Girls sew. Etc.

QUESTION: What do girls do?

A (what) (does what).
A dog barks.
A horse kicks.
A cow gives milk. Etc.

QUESTION: What does a horse do?

Plural.

(what) (do what).
Cows eat grass. Etc.

QUESTION: What do cows do?

It will perhaps now be easy enough to begin with names.

(who) put (what) on the (what).

Let a boy put a book on the table, having given his name beforehand.

John put a book on the table. Etc.

(who) broke a (what).
Henry broke a pencil. Etc.

(who) played with a (what).
Joseph played with a dog. Etc.

The (what) on (what) belongs to (whom).
The book on the table belongs to James. Etc.

These are only examples of how the device may be used in many ways in this line.

(who) went to town (when).

Mr. Gray went to town yesterday.

Or, to change the order:

(when) (who) went to town.

(when) (who) will go (where).

To-morrow Mr. Hagerty will go to Chicago.

(who) gave a (what) to (whom).

Mr. Gregory gave an apple to a boy.

Mr. Cochrane gave a slate-pencil to James. Etc.

(who) are (doing what).

The boys are playing base-ball.

The pupils are eating dinner. Etc.

*Adjectives.**

The sky is (how) = The sky is blue.
The wall is (how) = The wall is white.
The grass is (how) = The grass is green.
Chalk is (how) = The chalk is white.
John is (how) = John is tall.

QUESTION: How is John? How is chalk?

For a great variety of practice:

(who) is (how).

James is fat. Etc.

(what) is (how).

or

(who) are (how).
(what) are (how).

Again:

(who) —— (how).
(what) —— (how).

James gave a (how) knife to (whom) = James gave a sharp knife to Henry. Henry is a (how) = Henry is a tall (boy). John has (how) eyes = John has blue eyes.

(who) has a (how) (what) = James has a new slate. Henry has a nice book. Etc.

(who) have (how) (what) = The pupils have good health. Etc.

(what) has, or have (how) (what) = A camel has a long neck. Elephants have short legs. Etc.

QUESTION: How was the knife John gave to James? What did John give to James? How are the eyes John has?

* "Adjectives tell us *how* things are."—*Graebner.*

As children's ideas of things are very indefinite, the above exercises will afford almost limitless practice. We now begin to cultivate definiteness.

The sky is (what color) = The sky is blue.
John is (how many) years old = John is ten years old.
Henry is a (what sort of) boy = Henry is a good boy.
John paid (how much) for the ball = John paid twenty-five cents for the ball.
The well is (how) deep = The well is very deep.
QUESTION: What color is the sky? How many years old is John? Etc.
It is (how) but (how) to-day = It is clear but cold to-day.
It is (how) to go (where).
It is nice to go to Europe. Etc.
James went (where) (when) and bought (what).
James went to town yesterday and bought a new hat. Etc.

Pronouns, etc.

As I am without experience in the teaching of pupils of so low grade as this, I must ask allowance from teachers, particularly in illustrating the use of *I* and *you*.

I see a (whom).
I see a boy.
I see a girl. Etc.
I see a (what).
I see a slate.
I see a picture. Etc.
We eat (what).
We eat bread. Etc.
Who sees a boy? or, Whom do I see?
Who eat bread? or, What do we eat?
You saw (whom).

The pupil will be very likely to use *you* in his answer, so the teacher will have to be careful to tell him to use the pronoun *I* of the first person.

he .....him
John studies well.
—— is a (how) boy.
We like ——.

After a little effort, it will not be long before some one in the class will fill these blanks, and by frequent practice at such work the pronouns will soon be mastered.

The pronouns *I, she, they, it,* etc., are to be learned in the same way.

My (what) is in my desk.
My slate is in my desk.
Your (what) is in the barn.
Your horse is in the barn.
Our (what) are on the desks.
Our slates are on the desks.
John's (what) is in Milwaukee.
John's home is in Milwaukee.
Henry's (what) are (what color).
Henry's eyes are brown.
Fred's (who) came to see him (when).
Fred's father came to see him yesterday.
James cut his (what) in the Manual Training school.
He cut his finger in the Manual Training school.
Helen tore her (what).
She tore her dress.
The pupils have written their (what).
The pupils have written their lessons. Etc.
Fred lost —— knife.
Helen tore —— dress.
—— tore her dress.
A book is on the (what).
—— is a (how) book.
—— is (whose) book.
A book is on the table.
It is a nice book.
It is John's book.
A slate is on my (what).
—— is a (how) slate.
—— is (whose) slate.
A slate is on my desk.
It is a small slate.
It is my slate.
(whose) (what) is (where).
My home is in Delavan.
Fred Smith's home is in Arcadia, Wis. Etc.
(whose) (who) lives (where).
Mr. Hambright's father lives in Racine. Etc.
This (what) is (where).

Standing near a table, with your finger on some object, call attention to the above sentence. The pupils will soon fill out the sentence :

This book is on the table.
This (what) is (whose).
This book is John's.
This is (whose) (what).
This is Henry's book. Etc.
That (what) is (where).

Standing now at a distance and pointing to some object, do as before.

That clock is on the wall. Etc.
That (what) is (whose).
That is (whose) (what). Etc.
A (what) is a man who makes boots and shoes.
A shoemaker is a man who makes boots and shoes. Or,
A (who) who makes boots and shoes is a (what).
A man who makes boots and shoes is a shoemaker.
A (what) is a (who) who (does what).
A dressmaker is a woman who makes dresses. Etc.
(who), who is or was a (what) where, (did what).
Mr. Hambright, who is a clerk here, went to Milwaukee last Saturday.
James Conrad, who was a student in Gallaudet College two years ago, went to Colorado last summer for his health.
(who), who died (when), lived (where) or was (what).
Gen. Grant, who died in 1885, was an ex-President of the United States.
Gen. Sherman, who died some years ago, lived in New York city.
(who), who (does what), lives (where).
Mr. Hagerty, who teaches school here, lives in town. Etc.
(who), who is the (how) —— (where) (did what) (when).
James, who is the largest boy in school, went home yesterday. Etc.
The (what), which is (where), belongs to (whom).
The book, which is on the table, belongs to Mr. Murphy. Etc.
(what town), which is a (how) ——, is (how far) from (what town).
Delavan, which is a fine town, is 18 miles from Whitewater. Etc.
The (what) which is (where) is (whose).
The horse which is in the barn is Mr. Swiler's. Etc.

Of course the above are only partial illustrations of the use of the "*inciter*" in the case of the pronouns, but I think they will do to give the reader a fair idea of the way in which the method may be used in this part of language work.

Adverbs, etc.

James writes (how).

James writes nicely.

(who) walks (how).

Myra walks gracefully.

The pupils went to the Fair in the (what). Or,

The pupils went to the Fair (how).

They went to the Fair in the cars.

For practice in variety :

(who) (does what) (how).

John works well. Etc.

Henry studies hard. Etc.

(who) can play (what).

John can play ball. Etc.

(who) can (do what).

John can write.

Henry can ride a bicycle. Etc.

Practice in the use of *cannot* may be carried on in a similar manner.

Comparison of Adjectives.

(who) is or are (how).

Rosa is fat.

My brothers are tall. Etc.

(what) is or are (how).

Camels are ugly.

Lyon's finger is pretty sore.

(who) is or are (how) than (who).

Louisa is taller than I.

Jolitz is brighter than Ida.

(what) is or are (how) than (what).

The electric lights in the school-room are prettier than those in the study-room.

New York is more beautiful than Chicago.

(who) is the (how) —— in the class.

Rosa is the smallest girl in the class. Or,

(who) is the (how) —— (where).

Jolitz is the tallest boy in the school.

To encourage more diffcult work, I write something like this on the slate :

(who) said, or heard, or read, or told that (who) or (what) is or was the (how) —— (where).

Chris. told me that the dictionary was the largest book in the school-room.

Comparison—Adverbs.

(who) writes (how).

James writes nicely. Etc.

To give more variety and training, I put the device this way:

(who) (does what) or (did what) (how).

Supt. Swiler told Kohler that he did well in the shoe-shop.

Mr. —— told me he could not read the newspaper very well at night.

(who) (does what) (how) than (who).

The boys study harder than the girls.

(who) (does what) the (how) of (whom).

Parish walks the fastest of all the boys.

Bridget dances the most gracefully of all the girls.

Nearly all the above sentences in comparison of adjectives and adverbs are copied from my pupils' work.

It is (how) to be (how).

It is wrong to be jealous.

It is good to be industrious.

It is bad to be quarrelsome.

It is always proper to be polite. Etc.

(Pupils' work.)

(who) is (where).

Mr. Wachuta is in his room. Etc.

(when) (who) was (where).

Yesterday Miss Pearce was in Chicago. Etc.

It is (how) to be (where).

It is good to be in school.

(who) will go (where) (when).

Mr. Gray will go home this afternoon.

It is or was (how) (when) or (where).

It is cloudy to-day.

It was cold yesterday.

It was cold while I skated on Lake Como last Saturday.

It is a little cold to-day.

I think, if it is pleasant, we may skate on Lake Como next Saturday.

It was very cool in the woods last summer.

(Pupils' work.)

It is (how) to (do what).

It is nice to go home on Christmas.

It is good to read books.

It is fine sport to skate.

It is hard for some to learn.
It is bad to fight.
It is wrong to offend your teacher.
It is wrong to drink.
It is wrong to lie.

It takes (whom) (how long) to go home in the (what).
It takes James a day to go home in the cars.

It takes (whom) (how long) to (do what).
It takes Mr. Larson 45 minutes to ride to Geneva on his bicycle.
Etc.

(Pupils' work.)

It has been (how) for (how long).
It has been cloudy for almost a week.
It has been cold for almost two weeks.

(who) has been (how) for (how long).
John has been sick for three days.

(who) think it will be (how) (when).
I think it will be fine in a few days.

(who) think it will (do what) (when).
Hallada thinks it will rain next spring. Etc.

(who) (does what) as (how) as (who).
James writes as well as Frank.

(who) can (do what) as (how) as (who).
John can play ball as well as Henry.

To-day it is as (how) as (when) = To-day it is as cold as yesterday.

Because.

The boys cannot play (what), because it is (how).
The boys cannot play ball, because it is wet.

(who) cannot play (what), (why) it is (how).
The boys cannot play ball, because it is wet.

(why) it is (how), (who) cannot (do what).
Because it is wet, the girls cannot go down town. Etc.

(when) (who) could not go (where), (why).
Last week Harvey could not go to school, because he had a boil on his cheek.

When.

(when) (what) is out, (who) will (do what).
When school is out, Mr. Hagerty will take a picture of the new pupils.

When (who) goes (where) (when), —— will (do what).
When Mr. Larson goes to Michigan next summer, he will visit his friend. Etc.

If.

(who) said that if (who) were a (how) boy —— could go (where) (when).

John's father said that if he were a good boy, he could go to the fair in September. Etc.

(who) will buy (what) when —— goes (where) (when).

Mr. H. Hambright will buy some presents when he goes to Racine next week.

How.

(who) teaches (whom) how to make (what).

Mr. Beamsley teaches the boys how to make boots and shoes.

Since.

It is (how long) since (who) saw (whom).

It is three months since the pupils saw their parents and friends.

(who) has not seen (whom) since (what year), or (what month) or (what season).

James has not seen his mother since 1893.

Where.

(who) knows where (what) is, or are.

Fred knows where his dog is. Etc.

(who) knows, or know, where (who) lives, or live.

The teachers know where their pupils live. Etc.

(who) told (whom) that —— did not know where (who) went (when).

James told Henry that he did not know where his sister went yesterday.

I think the foregoing is sufficient to illustrate the method in this kind of work.

An Example of the Development of the Different Constructions of Verbs.

Name, 8 *Constructions.*

(who) named (whom).

My parents named me.

(who) named (whom) (what).

Last April my cousin named her little daughter, Ethel. Etc.

(what State) was named in honor of (whom).

Pennsylvania was named in honor of William Penn. Etc.

(who) named (whom) after (whom).

Lincoln's parents named him after his grandfather. Etc.

(who) was named by (whom).

Your son Orville was named by your mother-in-law. Etc.

A (who) named (what) (did what) (when) (where).

A man named Wilson committed suicide last summer at Ashland. Etc.

(whose) name is (what).

My cousin's name is Hulda Anderson, etc.

A (who) whose name was (what) (did what) (when).

A boy whose name was James Riley ran away from school last January.

The above is only a sample of such work, all the sentences being written by one of my pupils. In this way I taught fourteen verbs last year whose different constructions were from five to twelve.

Here is some use that may be made of the device in geography. The class is supposed to be in the schoolroom and pupils and objects are made to assist.

(who) is north of (what).

John is north of the table. Etc.

(who) or (what) is —— of (what).

The desk is south of the table.

(who) is (in what direction from) (what).

Henry is west of the table.

(who) or (what) is, or are, in (what) part of (what) or (what building).

Our school-room is in the western part of the school building. Etc.

(what country) is in (what) part of (what continent).

Alaska is in the northeastern part of North America. Etc.

Locating cities and towns:

Chicago is (where) in (what) part of (what State).

Chicago is on Lake Michigan, in the northeastern part of Illinois.

Now put some other city in the place of Chicago, and let the pupils locate it, and so on. I have tried the above, with excellent results.

These remaining pages are the work of the pupils, further illustrating the use of the method. Such work can be made hard or easy, as the teacher desires.

Description of a Picture.

This is a picture of (what). (who) are (doing what) hand in hand. Two (who) have (what) on [their heads]. One has (done what) on (what). (who) with the blue (what) has on (what). (what) is in front of (whom). (who) is sitting on (what) (where) (doing what). (what) are leaning against (what). (who) look (how). (who) on the ground seems to be (doing what) (why).

This is a picture of some children, hens, geese, houses, and oxen.

The children are running hand in hand.

Two girls have hats on.

One has fallen on the ground.
The boy with the blue dress has on a red necktie.
Two geese are in front of the children.
A man is sitting on a log near a fence holding his child.
A cane and a ladder are leaning against the log and the barn.
The children look happy. The boy on the ground seems to be crying because he is hurt.

Reproduction.—James Russell Lowell.

(who) was born (when) (where). —— was the (how) of (how many) (whom). (whose) name was (what). And —— was (what). (whose) (what) was (where) but he (did what) (where). (whose) home was called (what). There were (what) about (what) when (who) was (how). (who) loved to (do what). (who) had (what). —— built (what).

James Russell Lowell was born on February 22, 1819, in Cambridge. He was the youngest of five children. His father's name was Charles Lowell and he was a minister. His home was in Cambridge, but he preached in Boston. His home was called Elmwood. There were large beautiful groves about Elmwood when James was a little boy. He loved to play among the trees with his brother and sister. He had many pets, a colt, dog, and kittens. The children built a hut in the woods.

Christmas.

(what day) was (what). —— comes (when). On that (what) (who) was born (how long) ago. So we —— (what) in —— of his (what). —— is a (how) (what) for (whom), (why). (who) had our Christmas (where) this year. (who) was (what). —— had on (what). It was (what) to see (whom) (do what). After breakfast (who) (did what). (how many) got (what). Every one got (what). (who) had (what) for (what meals). (when) there was (what) (where). At (what) (who) (did what), going (where) at (what time).

Christmas.

Last Friday was Christmas. Christmas comes on December 25. On that day Jesus Christ was born 1900 years ago. So we observe Christmas in remembrance of his birth. It is a happy day for children, because they get presents. We had our Christmas in the dining-room this year. Mr. Joseph Wachuta was Santa Claus. He had on a sheepskin coat, fur cap, gray pants, and big shoes. It was fun to see Santa Claus dance, bow and shake hands with the pupils. After breakfast I got my box and opened it. Many pupils got boxes and presents. Every one got a box of candy, a bag of nuts, and a Chinese napkin. We had turkey, mince pie, and cranberry sauce for dinner, and oranges and cakes for supper. In the evening there was a party in the chapel. At the party we played games and danced, going to bed at 9 o'clock.

History.—How the Indians Lived.

(what people) lived (where) (when). —— called (what) (why). —— were divided (how) and each (what) had (what). Their clothing consisted mostly of (what). (who) were fond of (doing what). —— used (what) for money and also decorated (whom) with ——. —— —— made from (what). (whose) houses were (what), but —— had very little (what). Their cooking was done (how). They broiled (what) (how) and roasted (what) (how). (what) was tilled and (what) —— raised.

The Indians were the people who lived in America before the white people came. They were called Indians because the first discoverers believed that America was a part of Asia. The Indians were divided into tribes and each tribe had its own chief. Their clothing consisted mostly of deerskin. The warriors were fond of staining their faces in stripes, spots, and splatches of red, yellow, and blue. They used wampum for money and also decorated themselves with it. It was made from seashells. Their houses were tents of barks or mats, but they had very little furniture. Their cooking was done by putting hot stones in vessels of water. They broiled fish and meat above the fire and roasted corn and roots under the ashes. The ground was tilled and Indian corn, beans, squashes, and tobacco were raised.

How I Spend a Day Here at School.

(when) I rise or get up and have (what) at (what time). Then —— (do what). (what time) (who) go (where), and one of (whom) —— to (whom) (how long). After chapel —— go (where) or (do what). (what time) —— go (where). There I —— in (what study) or (what study), which takes (how long), and by (what time) (who) go (where).

After dinner —— (do what). (what time) we go (where). Some (what) are out (what time), but my (what) —— in till (what time). During the afternoon —— do work in (what studies). I —— (what study) the (how) of all my (what). —— have (what) (what time). (what) begins (what time), and then —— (do what).

How I Spend a Day Here.

In the morning I get up and have breakfast at 6.30. Then I drill in the gymnasium. At 7.50 we go to the chapel, and one of the teachers talks to us for about ten minutes. After chapel I go shoemaking. At 11 I go to school. There I recite in history or geography, which takes about an hour, and by 12 a. m. we go to dinner. After dinner I play games. At 1 p. m. we go to school. Some classes are out at 3 p. m., but my class stays in till 4.30. During the afternoon I do work in language and arithmetic. I like arithmetic the best of all my studies. We have supper at 5.30 p. m. Study begins at 7 p. m., and then I retire at 9 p. m.

It would be a good practice to require this in the past tense.

Physiology.—The Blood. (*A Recitation.*)

(what) make up (what) and float in (what). The (what) in (whom) weighs about (how many) pounds. (what) give (what) its color. Coagulation is (what). Impure blood is caused (how). Fainting frequently (does what) (how). (what) are the organs of (what). In the arteries, the (what) is (how), but in the veins —— is (how). (what) keeps up the (what). (what) is purified (how). Loss of (what) causes great (what). If (what) should stop circulating, we would (do what).

The Blood.

Red and white corpuscles make up the blood and they float in plasma. The blood in adults weighs about 12 pounds. The red corpuscles give the blood its color. Coagulation is the thickening of the blood. Impure blood is caused by lack of air, rich food, and alcohol. Fainting frequently stops bleeding by causing the blood to flow slowly. The heart, the arteries, the veins, and capillaries are the organs of circulation. In the arteries, the blood is pure, but in the veins it is impure. The contraction and expansion of the heart keeps up the circulation. The blood is purified by passing through the lungs. Loss of blood causes great weakness. If the blood should stop circulating, we would die.

While the principle of the association of ideas plays a large part in this method, it should be given particular prominence in the work of pronouns. Do a little at a time, giving the pupils plenty of time to think out their own work. Also do not get the idea that this method in any way whatever does away with questions. The reader will notice that there is no fixed order about this method. In a general sense, it may be used in about as many different ways as one would use questions.

The supplying or omission of articles, prepositions, possessive pronouns, and other parts of speech is left to the judgment of the teacher as to the ability of his or her class.

It has been suggested to me by a primary teacher that pupils in the primary department could profit by having the gist of their lessons occasionally put in the form of this method, to study along with their lessons in the evening. I am also certain that it can be conveniently used in beginning composition work, and also in writing a description of a walk of observation or a visit that the teacher has made with the class.

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KINDERGARTEN FOR THE DEAF.

In the early education of hearing children the use of kindergarten has proved to be of great advantage, but whether it is of practical value in the education of the deaf is a question which has presented itself for some time to the mind of the writer.

Wishing, if possible, to solve this question by obtaining information and expert opinion on the subject, I sent out, some time ago, the following list of questions to the superintendents of all the schools for the deaf in this country:

1. Is kindergarten taught in your school?

2. If so, do you place all children who enter the school, regardless of age, in the kindergarten department, or what rule do you follow in this respect?

(*a*) How long, as a general rule, do you allow the children to remain in this department?

3. What is your opinion as to the value of kindergarten for the deaf?

From the majority of these superintendents prompt replies were received, but a few of them neglected to answer my queries. Nine-tenths of the replies received were favorable to the use of kindergarten in schools for the deaf. Several of the older members of our profession, however, appear to be extremely doubtful of its value.

Kindergarten departments have been established at the following schools: Indiana, Maryland, Western New York, New Jersey, Kansas, Iowa, Nebraska, Wisconsin, Northern New York, Maine, New York, Mississippi, Arkansas, Central New York, Minnesota, Pennsylvania, North Carolina, and Illinois. All the other schools, with the exception of some eight or ten, use kindergarten methods and devices.

There seems to be a diversity of opinion as to the age

children should be admitted to the kindergarten department and the length of time they should remain in it. In the Rochester School, where kindergarten has been taught for the last twenty-two years, the rule is to place all children under twelve years, upon entering—with occasional exceptions of such as have had special opportunities for mental development or are physically mature in advance of their years,—in this department, in such of the classes as they are best qualified to enter. They are allowed to remain there until they are twelve years of age. A similar rule prevails at the New Jersey School. At the Wisconsin School all children under ten are placed in this department and allowed to remain there two years. In the Indiana School, where kindergarten has been admirably arranged and systematized, the admission into this department is limited to twenty pupils, from six to eight years of age, each year. These are allowed to remain in this department two years. At the other schools there does not seem to be any fixed rule, but the majority agree that only the youngest children, or those under eight years, should be admitted to this department, and that they should be allowed to remain there about two years.

In reference to the value of kindergarten for the deaf, Mr. Ely, Superintendent of the Maryland School, says:

"A kindergarten for the deaf cannot include all the good points of a kindergarten for the hearing. Music and rhythm, of course, have to be left out. A kindergarten for hearing children is useful in the very early years and before the age at which children are usually admitted to schools for the deaf.

"Our young deaf children in school, while in many ways at a disadvantage compared with young hearing children, are yet in many things as well advanced as those who can hear, and many of the kindergarten occupations are unsuited to them, or, if applicable at all, would require from them little more than passing notice.

"I put a great deal of value upon the kindergarten, but would not allow it to cover too much time."

Mr. Clarke, Superintendent of the Michigan School, says: "I see no reason why deaf children over seven years of age should go into a kindergarten. I should like to get hold of them when younger, and should then have one, but have not arranged it yet."

Dr. Williams, Principal of the Hartford School, says: "A modified form of kindergarten is valuable for very young deaf children."

Mr. Dudley, Superintendent of the Colorado School, writes: "I do not think kindergarten is available for the deaf. Kindergarten, to be real, must consist largely of song and story and there must be a continual fire of conversation going on simultaneously with the work. The deaf can march, and perform some of the gymnastics and do the weaving and clay-moulding, but these are only features—not the thing itself."

Dr. Westervelt, of the Rochester School, says: "We find our kindergarten a valuable part of our school method, as is shown by the number of years which it has been sustained. We use much of the regular kindergarten work, but necessarily omit a good many of the songs and exercises, and especially such as we find not suited to the age and other characteristics of our children. The training of attention by all of the kindergarten devices we have adopted develops children especially dull, as we have not been able to do in any other way, so that we have few children who appear imbecile or unable to use language to a limited degree, and, seeing that whatever they are able to conceive they are to express in English, it seems as if they were making a more satisfactory progress than if they could express the same thought in signs, and those of our children possessed of faculties of growth and training develop whatever powers they possess to excellent advantage. In order, however, that the

kindergarten should be beneficial to the deaf, it should be conducted through language by manual spelling to the absolute disuse of signs by both teachers and children, either in school or out. Language can then be used to them, substantially, as in kindergartens for the hearing."

Mr. Tate, of the Minnesota School, says: "In a greatly modified form it can be used as a diversion, and has some virtue, no doubt, as a means to development."

Mr. Yates, of the Arkansas School, says: "We think it a good thing, given in connection with the regular class work. Our kindergarten pupils are all in regular classes a short while each day as well as an hour and fifteen minutes in the kindergarten. They progress finely and every little fellow seems to love this work dearly. Our kindergarten teacher will also give lectures to our other primary teachers. This will, we hope, sharpen the ingenuity of these teachers, better enabling them to keep up a healthy, loving interest in their classes, so necessary in the work of instructing the young.

"I fear many of our schools have had too much dryness, sternness, and frown in our classes of little children. Kindergarten, I hope, will have the happy effect of mellowing matters, without interfering in the least with proper discipline. Kindergarten strives to draw out, to lead the young mind naturally, without cramping or frightening it in any way by using harshness or force, and that this is the proper method of instruction for at least a very large majority of our little ones, all will agree."

Mr. Mathison, of the Ontario School, thinks a kindergarten department would be valuable in every institution for the deaf, and purposes having one when funds can be obtained to pay a teacher.

Miss Taylor, of the Maine School, writes: "With young children whose attention could not otherwise be held five hours a day, it is developing and helpful, but if continued for too long a time, the teacher who takes the

class invariably complains that the pupils are indolent and prefer play to work. In teaching the deaf there is so much that takes the place of kindergarten work that most children after eight years of age do not require it."

"The school is incomplete without it," is the opinion of Mr. Dobyns, of the Mississippi School; and Mr. Nelson, of the Rome School, thinks it "a great thing for the deaf, to give them a foundation for their future practical education."

Mr. Currier, of the New York Institution, writes: "The kindergarten system has become so well understood as a system of education for hearing children that it is somewhat surprising that it is used in so few schools for the deaf. The employment of its methods in the early training of the deaf is looked upon with disfavor by many able instructors, who question the expediency of games and the like, and ask for proof of definite results obtained by the use of these methods. Great principles cannot be stated in a few minutes or understood in a few hours. The kindergarten, by utilizing play, puts it in the right place, and it is the one great reason why schools for the deaf should make it welcome."

Mr. Ray, of the North Carolina School, says: "I regard kindergarten methods in modified form of great advantage to small deaf children. I am not prepared to advocate the 'free, simple, and only kindergarten methods' as best adapted for the use of deaf children, but I am firmly convinced that with the smaller children of our schools for the deaf and blind the general principles in a modified form are practically invaluable when properly exercised."

Mr. Rider, of the Malone School, writes: "The kindergarten department is a department of educational foundations; a place where our little children can receive not only tender care, but the training, guidance, and associations which they need. Kindergarten reveals to the child a world in which he is for the first time brought to realize

that he is one of many, and given companionship with equals. Naturally he has been a separate individual and thoughtful of self alone. Now he is one of a community and must learn in the easiest way that the loving and helping of others is the surest happiness, and through the training he here receives he will in real life be more apt to make every pleasure a delightful task and every task a delightful pleasure."

Mr. Connor, of the Georgia School, says: "I think some of the kindergarten work can be used to very great advantage with the younger children, especially in the oral department, but I should not want the rigid enforcement of a rule that would require that every pupil should be placed in a department specially organized for this work."

In an admirable article in the January number of the *Annals*, Miss May Martin, of Gallaudet College, interestingly describes the kindergarten work of the New Jersey School. She speaks of the value of kindergarten work in the teaching of language, and the habits of industry, activity, alertness, and observation formed by a training in this work. She advocates the theory of making the first few years at school as full as possible of activity and genuine interest for the pupil, encouraging him to investigate and report to us rather than drilling him out of our own mass of information, and thinks that by doing so the best foundation for his future is laid.

From the opinions expressed above and from my own experience and knowledge along this line, I should say that every school for the deaf where children are admitted under eight years should have a kindergarten department. We all know what kindergarten does for the hearing child—how it trains the eye to observe correctly form, color, and proportion; how originality and ingenuity are developed, the imagination cultivated, the perception quickened, and the judgment ripened; how the hand is trained

to work consciously, and a valuable foundation mentally, morally, and physically laid. Now, I do not see why deaf children, through the aid of natural signs, finger-spelling, and speech, cannot reap the same advantage from kindergarten as the hearing. One of the reasons why kindergarten has not come to the front in the education of the deaf is that the trained kindergartners, as a rule, who are placed in charge of the kindergarten departments of our schools, have no knowledge of the nature and requirements of the deaf, and they, therefore, cannot possibly adapt the work to suit the needs of a class of whom they have no knowledge. If trained teachers of the deaf were also trained kindergartners and the kindergarten methods were adapted to suit the requirements of the deaf, then I believe that nothing else could lay such a valuable foundation. The effect of such a training would be felt throughout the entire school course.

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THE PSYCHOLOGICAL METHOD OF TEACHING LANGUAGE.*

THE grand aim of every teacher of the deaf is to put his pupils in possession of the spoken language of their country. Surely, then, another aid toward this end will be welcomed by our profession. It is in this belief that an English edition of the Series or Gouin method of teaching language has been prepared and at last happily completed. Its special aim is to aid the deaf in English-speaking countries and to lighten the labor of their teachers; but it is equally applicable to classes of hearing children in English primary schools and to foreigners who desire to acquire the English language.

* "Scenes of English Life. Book I: Children's Life. Book II: Daily Life, Trades, etc. Book III: The Country, Travelling, etc." London. George Philip & Son, 32 Fleet Street. 1898. Price one shilling each.

A review of the first volume of these lessons, to be found in the organ of the National Union of English Teachers, *The Schoolmaster*, December 25, 1897, remarks, "That the method is effective we can vouch. We have given several of the very interesting exercises to our Fourth Standard, and the way the composition was executed proves that both the selection of the scenes chosen and their clever gradation are suited to the work of the Standards and that they will greatly improve the children's language. The plan of arranging the verbs in the margin as a guide to sequence in writing is one which all teachers of composition may adopt with advantage. The teachers in our infant schools who would have their pupils answer in correct and completed sentences may use this book and will find that much of the hesitancy and awkward shyness so remarkable among English children will be lessened."

Here we have the acknowledgment that children in the possession of the sense of hearing, that avenue through which nature unconsciously imparts the gift of speech, who from infancy have heard conversation going on around them, who have through the ear gathered a large vocabulary and, as we should suppose, an easy application of phrases and colloquial expressions—yet these children still find themselves at a stand-still and the ready description of a series of actions or circumstances a difficult accomplishment. Can we marvel that the deaf, with all their deprivations, find the labors of composition a heavy task? A method that assists the hearing infant scholar will just as surely aid the young deaf student, when carefully adapted to his greater need. This I have proved in my own experience, and my purpose in this paper is briefly to indicate, to a wider circle than I have yet reached, the special advantages of these lessons, though the subject has already been brought before the readers of the *Annals*.*

* *Annals*, xxxviii, 177–189; xli, 417; xliii, 134.

All our best teachers in every country, and numerous papers and sample lessons that have appeared in these pages from time to time, have pointed out that the best method of commencing language is by giving the names of objects around, and actions performed by, the pupils themselves.

This work goes a step farther and would, as it were, stereotype in spoken language the details of every scene of daily life that passes under the conscious observation of the pupils, from the hour of their rising to that of their retiring to rest.

As the young child's attention is occupied chiefly with that which concerns himself, these scenes commence, naturally, with the putting on of clothing, partaking of meals, and engagements in nursery, playground, or school-room.

But, as knowledge increases, interest goes out to a wider circle, and the employments of others claim attention; how the domestic work of the home is conducted—the daily processes of cleaning, cooking, and preparing the table for meals. Wider still grows the inquiry. Whence come the articles of food, the tools and materials handled in these daily occupations? Domestic animals and their part in supplying these come under review. Then the tradespeople who visibly provide the articles in their stores. Beyond these come the processes of agriculture, manufacture, or commerce by which the articles of food and clothing are produced or brought within reach. Visits in vacation open up the vista of places beyond the narrow circle of home or school experience; and methods of travel on land and sea demand expression. All these will be found provided in the work now completed in its three books.

With the growing range of subject grows the need of phraseology in which to express it—not the language of literature, but the every-day colloquial expressions used

by those who hear, and it is precisely to give these that these lessons have been most carefully prepared.

The authors' aim has been in every instance to bring into notice every expression peculiar to that particular subject. As Mr. Swan expressed it in his Training Class for Teachers, "Every scene becomes, as it were, a set palette with words for colours, from which the artist can apply to his picture every tint or variation of tint that is needed; he knows in a moment where each is placed. What scene does the word '*wrench*' recall to your mind?" he asked. "A dentist drawing a tooth," was the reply, and Mr. Swan suggested the more accurate image of a blacksmith's forge and the wrenching off of the old horse-shoe. Deaf pupils soon grasp the value of this association of certain words with certain scenes, and it is no uncommon circumstance in the writer's school-room that when a new word thus acquired occurs again in another connection, say in a geography or history lesson, and is hesitated over by one pupil from whose mind the meaning has passed, it is recalled by a companion naming the subject of a former series lesson. Thus hesitation at the word "prepare" brought out the cry, "Don't you remember the brooding hen?—'The farmer's wife *prepares* a place for a brooding hen'—I know very well it means '*gets ready.*'" Or, again, "Cast." "Cast means *throw*, of course; don't you remember about 'the sower *casts* the seed broadcast' in the corn-field?"

Here we not only get a mechanical association of certain words with certain scenes; we have also the easy translation into equivalent terms, a most valuable exercise. For, let it be carefully noted, the whole aim of the method is to let nothing remain mechanical, except so far as we are compelled to apply definite sounds or written forms, since the verbal expressions of the ideas called up by certain existences, actions, qualities, or relations of terms, are the utterances or words that make up the particular language studied.

The earlier lessons on Toilet, Meals, etc., are easily illustrated and the actions actually performed by the use of the objects required or of toy models of the same. But as the pupils' range of language increases the meanings of new terms are no longer acted out, but are given by the use of equivalent terms already known, except when the new phraseology is such as to require the actual subject to be presented in order to insure a thorough mental grasp of the idea desired to be conveyed. This makes it possible to give lessons, at this stage, on subjects outside the school-room, but these lessons should still always recall to the pupils facts and scenes that they have previously been acquainted with or passed through. If there has been no such experience for individuals of the class, opportunity must be made for giving them this, either by an excursion taken for that purpose or, when possible, recalling attention to the subject when fitting illustrations occur during the walking or recreation hours. Teachers who confine their instructions within the walls of their class-room can never efficiently teach deaf pupils, for these must see and test and handle for themselves, if they are ever thoroughly to grasp the meaning of agricultural, manufacturing, or other technical processes described to them, and the same applies to scientific research and experiments in more advanced studies.

The ear being closed, the eye and the sense of touch must do double duty, which, happily, nature herself inclines them to do, if only the same permission be granted to carry out her wise impulses in the pursuit of knowledge in hours of study that curiosity claims in hours of relaxation for pleasure and amusement. Those who employ the Series Method are expected thus to bring their pupils face to face with every scene described; and if this plan be followed, as it is by all the best teachers, great gain will result to the deaf. This brings to our notice another great advantage of the method when systematic-

ally carried out. It produces and encourages in the learners an eager observation of all that occurs around them, and awakens the spirit of inquiry, finding vent in questions as to *how* and *why* concerning what they see taking place. Out of this grows the use of question forms and a readiness to comprehend and eventually produce good descriptions of actions and events, the basis of all composition.

This method can be employed under the manual method by the use of finger-spelling or writing, but it is of special value to teachers following the oral method. For this it has added advantages in increasing the power of rapid lip-reading and easy repetition of consecutive sentences. A fuller gain still is the opportunity, when going over a lesson, to intersperse subjective phrases somewhat after the manner followed in "Class-room Conversations in French" (French Series), by the same authors.

These hints for conversation may appear in English form later, but this will probably depend on the reception given to the books here under review, or possibly less formal methods will be adopted for suggesting these in some of our circulating educational papers, where adaptation to the deaf can be made their sole object.

It is not for a moment supposed that these Series lessons are to do away with all methods and lessons already employed in the various schools, or to stand in the way of other studies. When employed they will soon prove their own value and, besides, their intrinsic worth will be found to open many doors to the easier acquisition of the language of books—literature—for they do in truth by art supply the place of the colloquial language possessed by hearing children before coming to school, in their case unconsciously gathered and stored up by the ear and memory.

I have not attempted here to give the variety of exercises, both intuitive and grammatical, to which these les-

sons lend themselves. My aim has simply been to draw attention to the store of valuable educational matter contained in these books. May they indeed conduce, as they are so well adapted to do, to place in the possession of our deaf a readier command of the English language!

SUSANNA E. HULL,
Woodvale, Bexley, Kent, England.

THE FIFTEENTH MEETING OF THE CONVENTION.

GALLAUDET COLLEGE,
WASHINGTON, D. C., *March* 15, 1898.

As announced in the formal call published in the January number of the *Annals*, the Convention of American Instructors of the Deaf will hold its fifteenth meeting in the Ohio Institution for the Deaf and Dumb, at Columbus, beginning on Thursday, July 28, 1898.

The Convention will be called to order at 3 o'clock in the afternoon of that day, when addresses of welcome and responses will be made.

It is not practicable at this time to publish any program in detail, but members will be interested to know that the Committees on the Normal, Industrial, Oral, Auricular, and Kindergarten sections have been for some time actively engaged in preparing for the work in their respective branches, with every assurance of being able to secure valuable papers, and to arrange for interesting and profitable discussions.

The Convention will probably remain in session a week, and members, both active and honorary, will be entertained at the small charge of seventy-five cents per day each.

Mr. J. W. Jones, Superintendent of the Ohio Institution, has been appointed Local Committee of Arrange-

ments, and to him due notice should be given of purpose to attend the Convention.

Mr. Jones has assurances from railroad officials that very favorable rates will be granted, but is not able to give details until a later date.

All persons desiring to present papers, or wishing to suggest subjects for discussion, are requested to communicate with the chairmen of the Section Committees, as follows:

A. S. Clark, Normal Section, School for the Deaf, Hartford, Conn.

Warren Robinson, Industrial Section, School for the Deaf, Delavan, Wis.

Joseph C. Gordon, Oral Section, Institution for the Deaf and Dumb, Jacksonville, Ill.

Philip G. Gillett, Art Section, Jacksonville, Ill.

J. A. Gillespie, Auricular Section, Gillespie School for the Deaf, Omaha, Neb.

Mary McCowen, Kindergarten Section, McCowen Oral School, 6550 Yale Avenue, Chicago, Ill.

As the coming meeting of the Convention will be the first held since the adoption of a constitution, and the passage by Congress of an act conferring corporate powers on the Convention, the members of the Standing Executive Committee express the hope that members of the profession and others interested in the education of the deaf, especially trustees and directors of schools, in the countries occupying the continent of America, will show their interest in the old organization under its new and promising conditions by being present in large numbers at Columbus.

A cordial invitation is also extended to instructors of the deaf in other countries than those of the American continent to attend the Columbus meeting as honorary members of the Convention.

In behalf of the Committee,

EDWARD M. GALLAUDET,
President of the Convention.

SCHOOL ITEMS.

Gallaudet College.—A colossal bust of the Abbe de l'Épée by the deaf sculptor, Felix Plessis, has been presented by the deaf people of France to President Gallaudet, in grateful recognition of his advocacy of the Combined System of instruction. It will be unveiled on Presentation Day.

Kansas School.—Miss Myrtle Foote has resigned her position as teacher, and is succeeded by Mr. C. D. Adams, late boys' supervisor.

Michigan School.—Miss Belle Schrikema, a teacher in the School since 1895, died February 27, 1898, in Butterworth Hospital, Grand Rapids, Michigan. She had typhoid fever last summer, followed by quick consumption, but kept at her work of teaching until just before Christmas. She was graduated from the School in 1895. During her last year as a pupil she taught a class half of each day, and immediately after graduation was appointed a regular teacher. Her associates say of her that "she was earnest and efficient. Her ambition and delight were to confer on her pupils what she had herself received—the priceless boon of education. Her work did not cease with the close of the daily school session. She mingled with the pupils, and by her friendly sympathy exerted a wholesome Christian influence."

Missouri School.—The Board of Regents of the University of Missouri have passed a resolution admitting the graduates of this School, without examination, into the schools of Agriculture and Mechanic Arts connected with the University.

North Carolina (Morganton) School.—The erection of a new school-building has been begun. It is to be built of brick, with a slate roof, and is to be completed by September 15. The wood-work will be done by the Wood-Working Department of the School.

Ohio Institution.—Miss Letitia Doane, who has been connected with the Institution as a teacher for nine years, six in the manual department and three in the oral, has resigned her position to take charge of a class of four pupils in La Salle,

Illinois. She is succeeded by Miss Anna Clark, who has been a teacher in the New York Institution for the past two years.

Virginia School.—The name of the School has been changed by the legislature to "The Virginia School for the Deaf and the Blind."

MISCELLANEOUS.

Russian Schools.—Mr. C. Hörschelmann, Director of the Gotthard Institution at Fennern, Livonia, in a recent report to the Volta Bureau, supplementing its statistics in regard to Russian Schools, says:

We have in Russia a total of 26 institutions for the deaf, viz: In Finland six, having some 400 pupils; in the Baltic Provinces six, having some 200 pupils; in Russia proper thirteen, having some 700 pupils; in Warsaw one, having some (?)*, making a total of 26 institutions with 1,300 pupils and 200 teachers.

In Finland all of the schools are State institutions, and involve an annual expenditure by the Finnish Government of some 200,000 marks. According to the census of 1890, the enumerators reported 2,767 deaf-mutes, of whom 629 were of school age (8-12 years). In Russia proper only two institutions are supported by the Imperial Government; the remainder are sustained by municipalities, associations, benefactions, contributions, collections, interest on trust funds, and pay pupils. There are three normal institutions, respectively, in Fennern, Mitau, and recently in St. Petersburg. According to an article on Deaf-Mutism in the most recent edition of Schwabach's "Medicinische Realencyklopädie," 97½ per cent. of the Russian deaf are uneducated. In Finland all institutions have separate Oral and Manual departments. In the Baltic Provinces the Oral method prevails; of the thirteen institutions of Russia proper six are Oral, two follow the Manual method, and the rest the Combined System.

The Trans-Mississippi Educational Convention.—In connection with the Exposition to be held at Omaha, Nebraska, during the coming summer, an Educational Convention will be held June 28, 29, and 30. One department of the Convention will be devoted to teachers of the deaf and of the blind, and will be under the direction of Mr. J. A. Gillespie, of the Gillespie School for the Deaf, Omaha, Nebraska.

* This Institution reports to the Volta Bureau direct as having 40 teachers and 201 pupils.

Helen Keller.—In consequence of serious differences between Miss Sullivan and the authorities of "The Cambridge School," where Helen Keller was successfully pursuing her preparatory college work, as described by Mr. Arthur Gilman in the *Annals* of November last, Helen was removed from the School just before the Christmas vacation. The question at issue was not merely, as stated in the newspapers at the time of the rupture, whether a shorter or longer period was required for her preparation for college, but also whether Miss Sullivan should be allowed to remain with her as a companion. Helen sided warmly with Miss Sullivan, and indignantly refused to accept any advantages for herself which involved a separation from the beloved teacher who had done so much for her in the past. Some of Helen's friends think the authorities of the School were in the wrong, others think Miss Sullivan was; but all are agreed that Helen herself was entirely free from blame. At present she is residing with Miss Sullivan in a private family near Boston, and is pursuing her studies under the direction of a private tutor.

Foreign Periodicals.—Two new monthly periodicals relating to the education of the deaf have recently appeared: *El Sordo-Mudo Argentino*, published at the National Institution, Buenos Aires, Argentine Republic, under the direction of Mr. J. P. Díaz Gómez, and *Les Annales Françaises des Sourds-Muets*, edited by Mr. G. Bertoux, an instructor in the National Institution at Paris, France. The two periodicals formerly published at Paris, the *Revue Française* and the *Revue Internationale*, have both died.

The Annals.—When the publication of the *Annals* was changed from quarterly to bi-monthly two years ago, the price was raised from $2.00 a year to $3.00, in order to meet the increased expense. The Committee now feel justified in reducing the price to $2.00, beginning with the year 1898. Subscribers who have already paid for this year at the rate of $3.00 will have their subscriptions extended six months free of charge, or, if they prefer and will notify the editor to that effect, $1.00 will be returned.

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